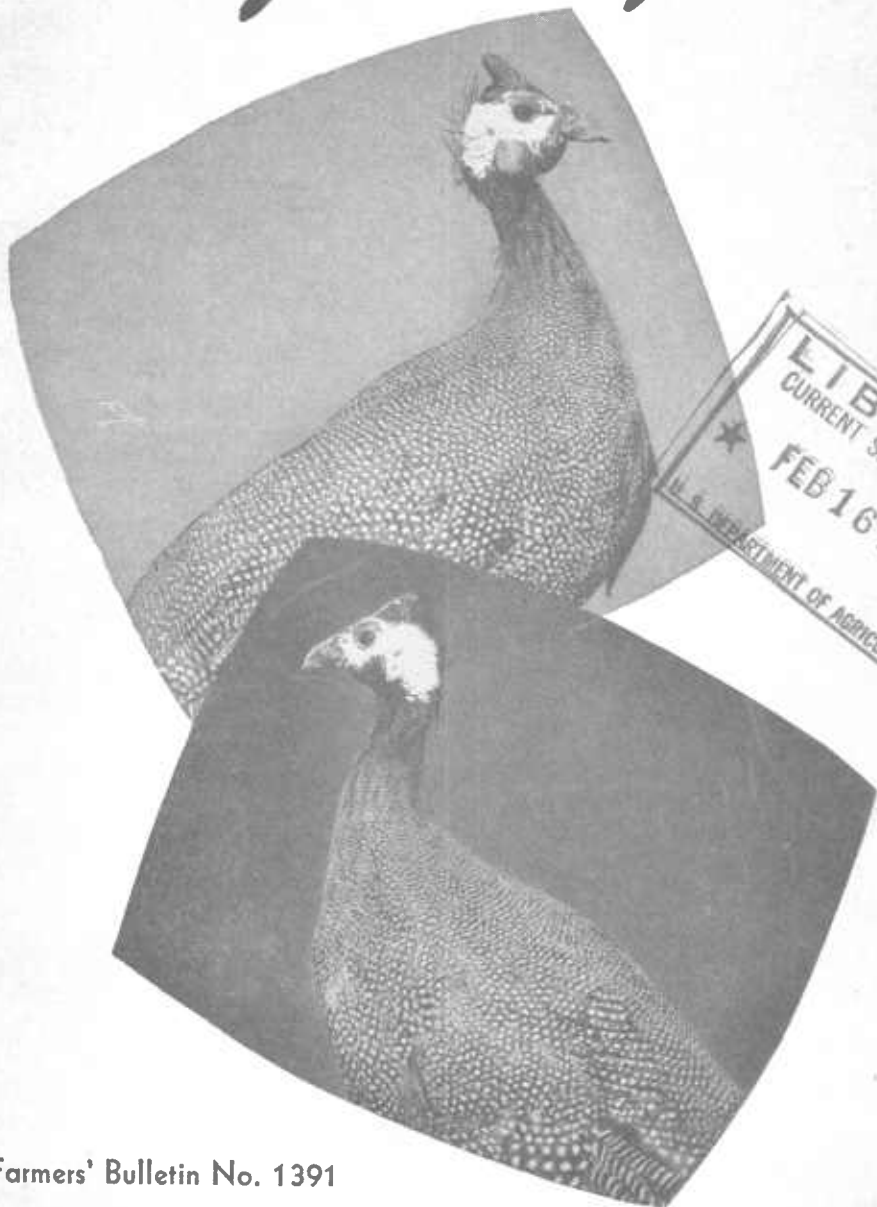


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# The Guinea Fowl



Farmers' Bulletin No. 1391

U. S. DEPARTMENT OF AGRICULTURE

# THE GUINEA FOWL

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### Production of Guinea Fowl

**G**UINEA FOWL are used as a substitute for game birds such as grouse, partridge, quail, and pheasant. Many hotels and restaurants in large cities serve prime young guineas at banquets and club dinners as a special delicacy. Dressed guineas are attractive in appearance, although darker than common fowls. The flesh of young guineas is tender and of especially fine flavor, resembling that of wild game. Old guineas, however, are usually tough, and the flesh is rather dry.

Some guineas are raised in flocks of 100 or more, but most of them are raised in smaller flocks on farms in the North Central and South Central States. Through lack of good management, many farmers keeping a small flock of guineas obtain only a few young birds from each hen.

The guinea is often useful in protecting the farm flock from marauders by its loud, harsh cry and its pugnacious disposition. Guineas will destroy insects in the garden and, as they do not scratch, are less destructive than chickens.

It is estimated that only about 1 million young guinea fowl are

raised each year on farms in this country. This is less than the number of geese, and only a small percent of the number of turkeys raised. According to the 1940 census (the latest census that includes figures on guinea fowl), the States raising the most guineas were Missouri, Oklahoma, Illinois, Kansas, Texas, North Carolina, Virginia, Pennsylvania, Mississippi, and Maryland.

The highest prices for guinea fowl are obtained in large cities, especially in the East. Guinea raisers who are near good city markets or who have developed a retail trade usually receive excellent prices for dressed young guineas. The majority of guineas are produced on general farms, are put through the poultry-processing companies, and are later shipped to city markets.

The sale of guinea hatching eggs, guinea chicks, and guinea fowl for breeding is very limited, compared with that of chickens and turkeys. In recent years a very few hatcheries have taken up guinea-chick production in the central West and in the East. These hatcheries have created an interest in guinea production and have provided a good market for hatching eggs.

<sup>1</sup> A. R. Lee, author of previous revision of this bulletin, retired August 1952.

### Varieties of Guinea Fowl

Many species of wild guinea fowl are found in Africa. The fowls derive their name from Guinea, a part of the west coast of that continent. The common domestic guineas are descended from one of these wild species (*Numida meleagris*). They have long been domesticated, having been raised as table birds by the ancient Greeks and Romans. They were brought to this country by the early settlers. In Africa, where there are many wild flocks, guineas are highly prized by hunters as game birds, and in England they are sometimes used to stock game preserves.

There are three principal varieties of domesticated guinea fowl—

Pearl, White, and Lavender. The Pearl and the White are the most highly prized. The Pearl has a purplish-gray plumage regularly dotted or "pearled" with white and is so handsome that frequently the feathers are used for ornamental purposes. The illustration on the front cover shows a male and female of this variety. The White guinea fowl (fig. 1) has pure-white plumage, and its skin is lighter in color than that of the Pearl variety. Lavender guineas resemble those of the Pearl variety, except that their plumage is light gray or lavender, regularly dotted with white instead of dark or purplish gray dotted with white (fig. 2). By crossing the Pearl or Lavender varieties with the White, what is known as the

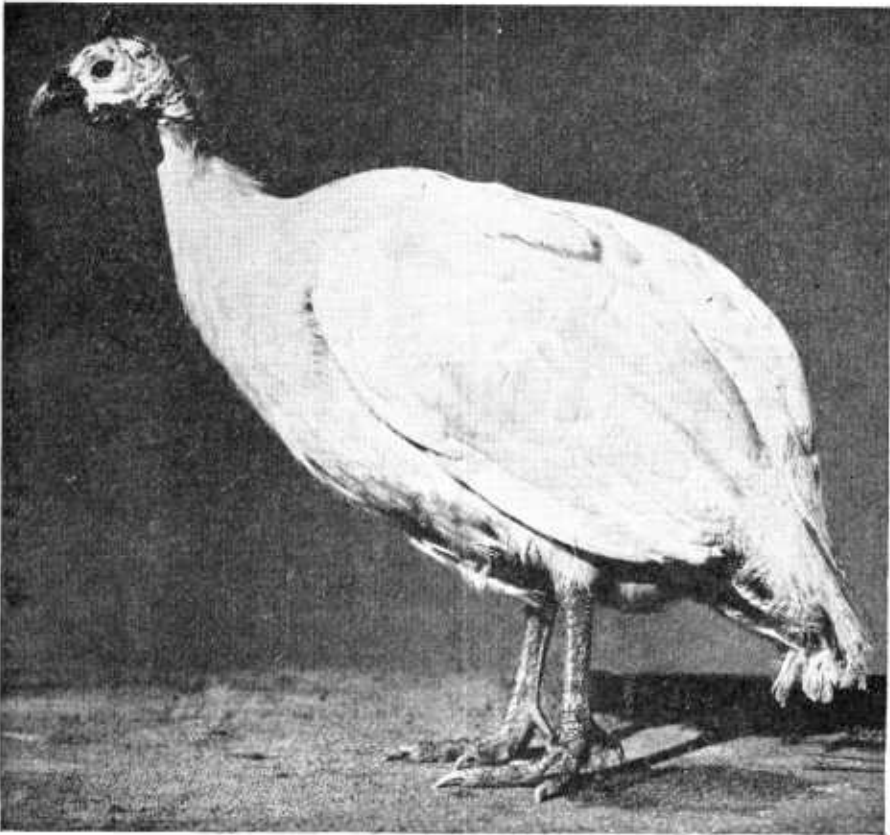


FIGURE 1.—White guinea, male.

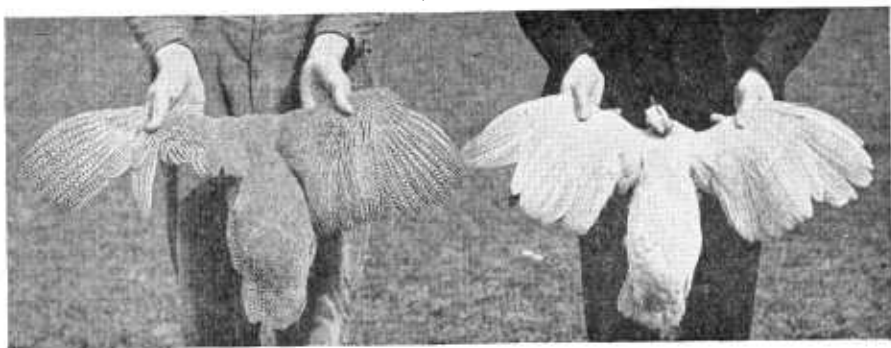


FIGURE 2.—The color of the plumage of the Pearl guinea (left) is purplish gray and the Lavender (right) is light gray. Both varieties are regularly dotted with white.

“splashed” guinea is produced, the breast and flight feathers being white and the remainder of the plumage pearl or lavender. Crosses between guinea fowl and other poultry, particularly chickens, and less commonly turkeys, are not unknown, but such birds without exception are sterile.

Young guinea chicks are very attractive. Those of the Pearl variety resemble young quail. They are brown, the underpart of the body is lighter than the rest, and the beak and legs are red. The first feathers, which are brown, are replaced gradually by the “pearled” feathers, until at about 2 months of age the brown feathers have disappeared completely. About this time the wattles and helmet begin to make an appearance.

No standard of perfection has been set for guineas, as the birds are not recognized by the American Poultry Association. They are exhibited at poultry shows throughout the country, however, and most of these shows offer prizes for the best birds. In judging guinea fowl, the points regarded as most important are good size and uniform color. Presence of white flight feathers is the most common defect in the Pearl and Lavender varieties. At maturity both male and female guineas range from 3 to 3½ pounds in weight.

### Distinguishing Sex

The male and the female guinea fowl differ so little in appearance that many persons have considerable difficulty in making a distinction. Indeed, it often happens that those who are inexperienced in raising these fowl will unknowingly keep all males or all females as breeding stock. Usually, however, sex may be distinguished by the difference in the cry of the birds and by the larger helmet and wattles and the coarser head of the male (cover illustration). In young male guineas 12 to 15 weeks of age, the edges of the wattles are thicker than those of the female. The cry of the female sounds like “buckwheat, buckwheat,” or “put-rock, put-rock,” and is decidedly different from the one-syllable shriek of the male. When excited, both the male and the female emit one-syllable cries, but at no time does the male’s cry resemble “buckwheat, buckwheat.” Sex can be distinguished by this difference between the cry of the male and that of the female after the birds are about 2 months old.

### Management of Breeding Stock

In their wild state guinea fowls mate in pairs, and this tendency prevails among domesticated guineas also, provided males and females

are equal in number. As the breeding season approaches, mated pairs range off in the fields in search of hidden nesting places, which makes it difficult to find the eggs. However, it is not necessary to mate them in pairs under domestic conditions to secure fertile eggs, and on most general farms 1 male is usually kept for every 4 or 5 females. When guineas are kept closely confined, 1 male may be mated with 6 to 8 females, and several hens will use the same nest. On some farms the breeders are kept confined during the laying period in houses equipped with wire-floored sun porches. Open-front poultry houses with plenty of ventilation are desirable.

Guinea-breeding stock are usually allowed free range. They are difficult to confine in open poultry yards, unless their wings are pinioned or one wing is clipped. Birds on range also may be treated in this manner. Guinea chicks may be pinioned after they are from 1 to 2 weeks old by snipping off the last joint of the wing and dipping the stump in tannic acid. It is more difficult to pinion an adult bird. When this operation is performed on a full-grown bird, the wing must be tied up to prevent excessive bleeding. Another method of treating adult stock is to clip the flight feathers every year.

Young guineas raised for breeding should have a growing diet in the fall and winter prior to egg production, a breeder diet during the laying season, and a maintenance ration after the hens are through laying. A mixture of grains, such as corn, wheat, and oats, is fed with the mash. A breeder mash containing from 21 to 24 percent of protein should be kept constantly before the breeders, beginning about a month before eggs are expected. Chicken or turkey mash will give good results with birds that are on range and have plenty of sunlight and green feed. When guineas are kept closely confined, a carefully bal-

anced diet, well supplemented with vitamins, is essential.

Commercial chicken or turkey breeding mashers are generally used for guinea fowl kept confined. In addition to these feeds, insoluble grit, oystershell or limestone, and clean water are supplied.

### **Egg Production**

The number of eggs a guinea hen will lay depends on her breeding and management. A hen that is of good stock and carefully managed will lay 100 or more eggs a year. Breeders generally produce well for 2 to 3 years, and they are sometimes kept as long as 4 or 5 years in small farm flocks. In such flocks hens will usually lay about 30 eggs and then go broody. If broken of broodiness, they will continue laying on into the fall, producing from 50 to 100 eggs in all.

Usually guinea hens start laying in March or April, and many continue to lay until October. The hens will lay in the house or in the yards if they are kept confined. Sometimes breeders are kept confined until about 3 o'clock in the afternoon or until they have laid. If allowed free range, they will make nesting places among the weeds and brush along the fences or in the fields. Two or three marked eggs should be left in these hidden, or "stolen," nests so that the hens will continue to lay there. Gather the eggs daily, but do not disturb the hens while they are laying.

Keep the eggs in a cool place and do not hold them more than 2 weeks before setting. Guinea eggs are smaller than chicken eggs. They weigh about 1.4 ounces each, whereas chicken eggs average about 2 ounces (fig. 3).

### **Incubation**

The period of incubation of guinea eggs is from 26 to 28 days, and the incubation method is the same as for chicken eggs. Natural methods of incubation are generally

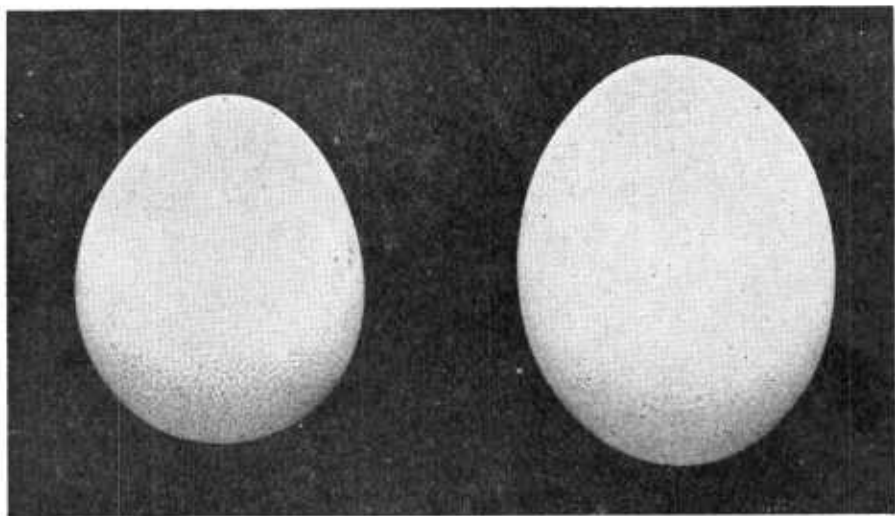


FIGURE 3.—Relative size of egg of a guinea hen (left) and of a chicken egg (right).

used in small flocks, but for large flocks incubators are more satisfactory. Chicken hens are commonly used for hatching guinea eggs, as they are more adaptable than guinea hens. Guinea hens are usually too wild to be set anywhere except in the nests where they become broody. As soon as some of the guinea chicks hatch and begin moving about, the hen is likely to leave the nest, abandoning the eggs that are not yet hatched. These eggs may yet hatch if while still warm they are put under another broody hen or in an incubator.

From 12 to 15 eggs may be set under a guinea hen and 20 to 28 under a large chicken hen. Protect outside nests from the weather and from prowling animals. Individual runs may be provided for each hen, or the hens may be taken off the nests daily and given feed and water. Hens should be treated for lice before they are set. More information on both natural and artificial methods of hatching and rearing poultry is contained in *Farmers' Bulletin 1409, "Turkey Raising."*

The correct incubation temperatures for guinea eggs are the same

as for chicken eggs. Forced-draft incubators are operated at about 99.5° F. for the first 3 weeks and at 97° for the rest of the period. The manufacturer's directions for operating incubators should be followed for each type of machine. In the still-air, single-tier incubators, the thermometer should register about 102° F. for the first 3 weeks and about 103° for the last week. The thermometer in these still-air machines is placed so that it will just clear the top of the eggs. Guinea eggs need more moisture than chicken eggs during incubation. Eggs should be turned at least 2 or 3 times daily up to 4 days before the eggs hatch. For the remainder of the incubation period the incubator is usually kept closed.

#### **Rearing Chicks in Farm Flocks**

Chicken hens make the best mothers for guinea chicks. Guinea hens are likely to take their chicks through wet grass and lead them too far away from home. They will often remain out in the fields at night instead of returning to their brood coops. When two or more hens are set at one time, the chicks may be doubled up at hatching time

and any chicks hatched by guinea hens may be given to chicken hens to raise. A large chicken hen will brood as many as 25 guinea chicks.

Place clean dry litter in the coop. The hen and chicks should be confined to the coop, with or without a small covered yard attached, for the first 2 or 3 days, after which time the hen is usually confined and the chicks are allowed to range—or both hen and chicks may be allowed their freedom. Brood coops should be closed at night to keep out predatory animals. The young chicks should be kept confined until the grass dries in the morning. Allow the chicks to range on clean grassland and move the brood coops weekly or oftener to fresh ground.

Guineas raised by natural methods will usually leave their coop when from 6 to 8 weeks old, and begin roosting at night in a nearby tree or other roosting place. They prefer roosting in the open, but if they have been raised with a chicken hen, they can be trained to follow her inside a poultry house to roost. If they become accustomed to going into a house or other enclosure, they will not be so difficult to catch when they are wanted for the market. Guineas will often remain close to the mother hen until they are almost fully grown. This attachment tends to control the natural wild instincts of the guineas and simplifies their production and management.

### **Commercial Rearing**

Guinea chicks may be raised in the same kinds of brooders and brooder houses as are used for turkeys or chickens. Methods of brooding and brooding temperatures similar to those used for turkeys are recommended. When the guinea chicks are first put under the brooder they are usually confined there by placing a guard around the hover. Baby guineas may go through 1/2-inch mesh wire, so finer wire or some other kind of guard

is desirable. The guard should be gradually enlarged and then discarded entirely when the chicks are about 10 days old.

The best temperature at which to keep the brooder depends on the style of hover, the age of the guinea chicks, and the weather. Chicks should always be kept comfortable. Hovers operated in cool rooms are started at about 95° to 100° F., and kept at about 95° for the first 2 weeks, after which the temperature may be reduced about 5° a week, or kept at 90° to 95°, as long as the chicks need heat. Battery brooders are sometimes used for brooding guinea chicks for the first 3 weeks, after which they are transferred to brooders.

Guinea chicks are raised successfully in confinement in brooder houses with wire-floored sun porches attached and with equipment similar to that commonly used for raising young turkeys. They may be kept in these houses until they are ready for market. Flocks of as many as 200 chicks are kept in brooder houses, and sometimes much larger numbers are raised in one group. On most general farms young guineas are raised in small flocks, usually only 30 or 40 chicks to a brooder. Careful sanitation and clean ground are important where good-sized flocks of young guineas are raised.

### **Feeding**

Guineas are fed much the same as turkeys or chickens, but they require less feed, as they are natural rangers. They need not be given any feed for the first 24 hours because during this period they are still receiving nourishment from the egg. Their first feed may be turkey or chicken starting mash or crushed pellets upon which is scattered a little oatmeal, or tender, finely chopped green feed. The starting mash should contain about 25 percent of protein. Green feed is not necessary in the mash after a few



days if the guineas are to range on grass. Grit and water are the only supplements needed.

Growing mash and grain may be fed after the chicks are about 6 weeks old. During the first 10 days either keep mash before the chicks all of the time or feed them 4 or 5 times daily. Mash is usually kept before birds in confinement. Young guineas will grow faster and be ready for market earlier if fed freely. Only two feeds a day need be given chicks on range after they are well started. It is advisable to feed all flocks in late afternoon so that they will always return to their coops at night.

### Marketing

The normal marketing season for live guinea fowl raised in farm flocks is during the latter part of the summer and throughout the fall. At that time the demand in the city market is for young birds weighing from  $1\frac{3}{4}$  to  $2\frac{1}{2}$  pounds alive. Under good management they reach these weights at 12 to 14 weeks of age. The average live weight of young guineas in several commercial flocks was 2.48 pounds at 13 weeks of age. These birds brought 60 cents a pound alive at the farm (1951). A few small guineas usually start coming on the market late in June, the general farm supply

beginning late in August. The greatest demand is for larger birds weighing over 2 pounds. Prices for young live guineas were about twice the price paid for broilers on farms in many sections of the country in 1951. Much higher prices than that quoted above are obtained for dressed young guineas, especially when they are sold directly to the consumer.

Most guineas are marketed alive through poultry dealers. The birds are usually dressed in the same way as chickens except in very special cases when they are marketed like game birds with the feathers left on. For all retail markets, as well as for hotel and restaurant trade, the feathers should be removed.

Guineas prepared for market are usually dry picked. The vein in the roof of the mouth is severed first to insure thorough bleeding, and the knife is then thrust through the groove in the roof of the mouth into the brain. When the brain is pierced, the feathers are loosened by a convulsive movement of the muscles, which makes them much easier to pick. If guineas are to be marketed with the feathers left on, all that needs to be done is to bleed the birds thoroughly. Most young guineas are quick frozen at poultry packinghouses and kept in storage until needed by the hotel, restaurant, and retail trade.